

What is claimed:

1. An ignition coil assembly for providing a current to a spark plug to combust fuel in a cylinder of an internal combustion engine, said ignition coil assembly comprising:

a primary winding defining a central axis;

a secondary winding wrapped about said primary winding coaxial with said central axis; and

a central core extending through said primary winding coaxial with said central axis, said central core including a plurality of core components each having a single exterior surface that is continuous and extends through an arcuate path.

2. An ignition coil assembly as set forth in claim 1 wherein said arcuate path is circular.

3. An ignition coil assembly as set forth in claim 2 including a case for holding said plurality of core components concentrically about said central axis.

4. An ignition coil assembly as set forth in claim 3 wherein each of said plurality of core components includes an interior surface that is continuous and extends through an interior arcuate surface.

5. An ignition coil assembly as set forth in claim 4 wherein each of said plurality of core components defines a first end and a second end with each of said single exterior surfaces and said interior surfaces extending therebetween.

6. An ignition coil assembly as set forth in claim 5 wherein said first end and said second end are spaced apart to define a core gap therebetween.

7. An ignition coil assembly as set forth in claim 3 wherein each of said plurality of core components includes first and second intersecting surfaces to define an arc.

8. An ignition coil assembly as set forth in claim 7 including an insulating gap wedge to be positioned concentrically with said plurality of core components.

9. An ignition coil assembly as set forth in claim 3 wherein each of said plurality of core components creates a circle.

10. An ignition coil assembly for providing a current to a spark plug to combust fuel in a cylinder of an internal combustion engine, said ignition coil assembly comprising:

a primary winding defining a central axis;

a secondary winding wrapped about said primary winding coaxial with said central axis;

a central core extending through said primary winding coaxial with said central axis, said central core including a plurality of core components each having a single exterior surface that is continuous and extends through an arcuate path; and

an insulating gap wedge positioned concentrically with said plurality of core components.

11. An ignition coil assembly as set forth in claim 10 wherein said arcuate path is circular.

12. An ignition coil assembly as set forth in claim 11 including a case for holding said plurality of core components concentrically about said central axis.

13. An ignition coil assembly as set forth in claim 12 wherein each of said plurality of core components includes an interior surface that is continuous and extends through an interior arcuate surface.

14. An ignition coil assembly as set forth in claim 13 wherein each of said plurality of core components defines a first end and a second end with each of said single exterior surfaces and said interior surfaces extending therebetween.

15. An ignition coil assembly as set forth in claim 14 wherein said first end and said second end are spaced apart to define a core gap therebetween.

16. An ignition coil assembly as set forth in claim 12 wherein each of said plurality of core components includes first and second intersecting surfaces to define an arc.

17. An ignition coil assembly for providing a current to a spark plug to combust fuel in a cylinder of an internal combustion engine, said ignition coil assembly comprising:

a primary winding defining a central axis;

a secondary winding wrapped about said primary winding coaxial with said central axis; and

a central core extending through said primary winding coaxial with said central axis, said central core including a plurality of core components each having a single exterior surface, continuously extending through an arcuate path, and first and second intersecting surfaces such that said single exterior and said first and second intersecting surfaces define an arc.

18. An ignition coil assembly as set forth in claim 17 including an insulating gap wedge to be positioned concentrically with said plurality of core components.

19. An ignition coil assembly for providing a current to a spark plug to combust fuel in a cylinder of an internal combustion engine, said ignition coil assembly comprising:

a primary winding defining a central axis;

a secondary winding wrapped about said primary winding coaxial with said central axis; and

a central core extending through said primary winding coaxial with said central axis, said central core including a plurality of core components wherein each of said plurality of core components is a circle.